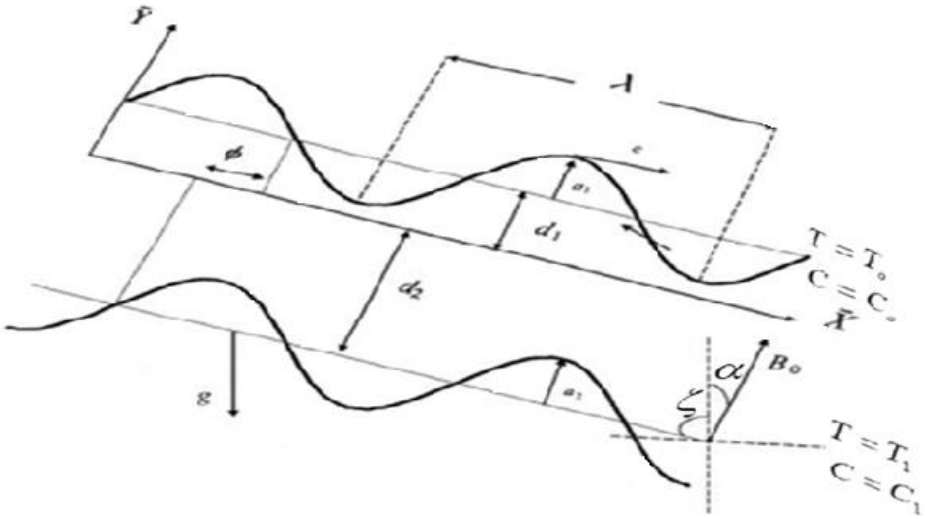

Figure 1: Schematic Diagram of the Physical Model

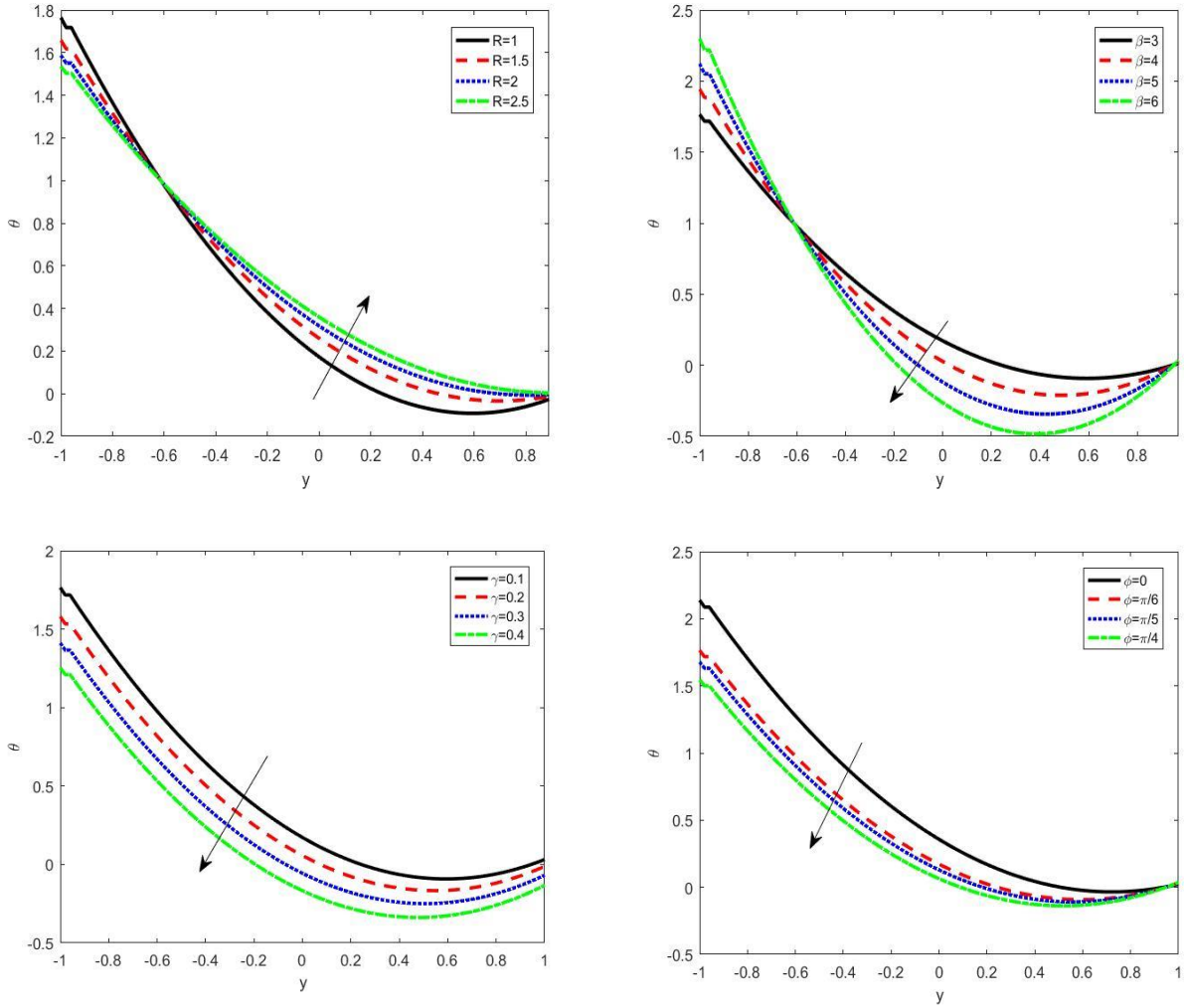

Figure 2: Discrepancies of the temperature θ against the $y-$ axis for different values of the R, β, γ and ϕ in the peristaltic flow of Blood fluid in channels.

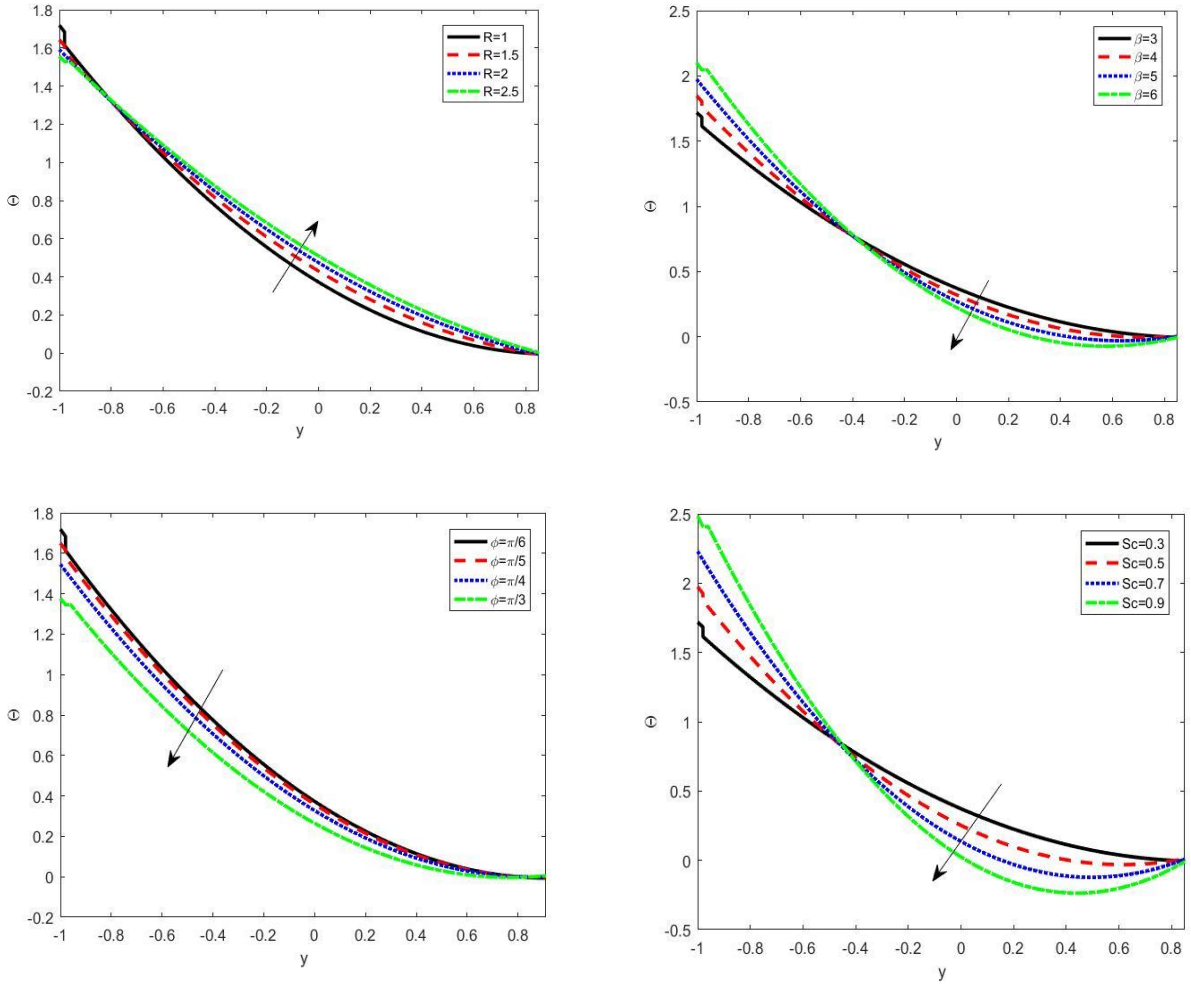

Figure 3: Discrepancies of the concentration Θ against the $y-$ axis for different values of the R, β, ϕ and Sc in the peristaltic flow of Blood fluid in channels.

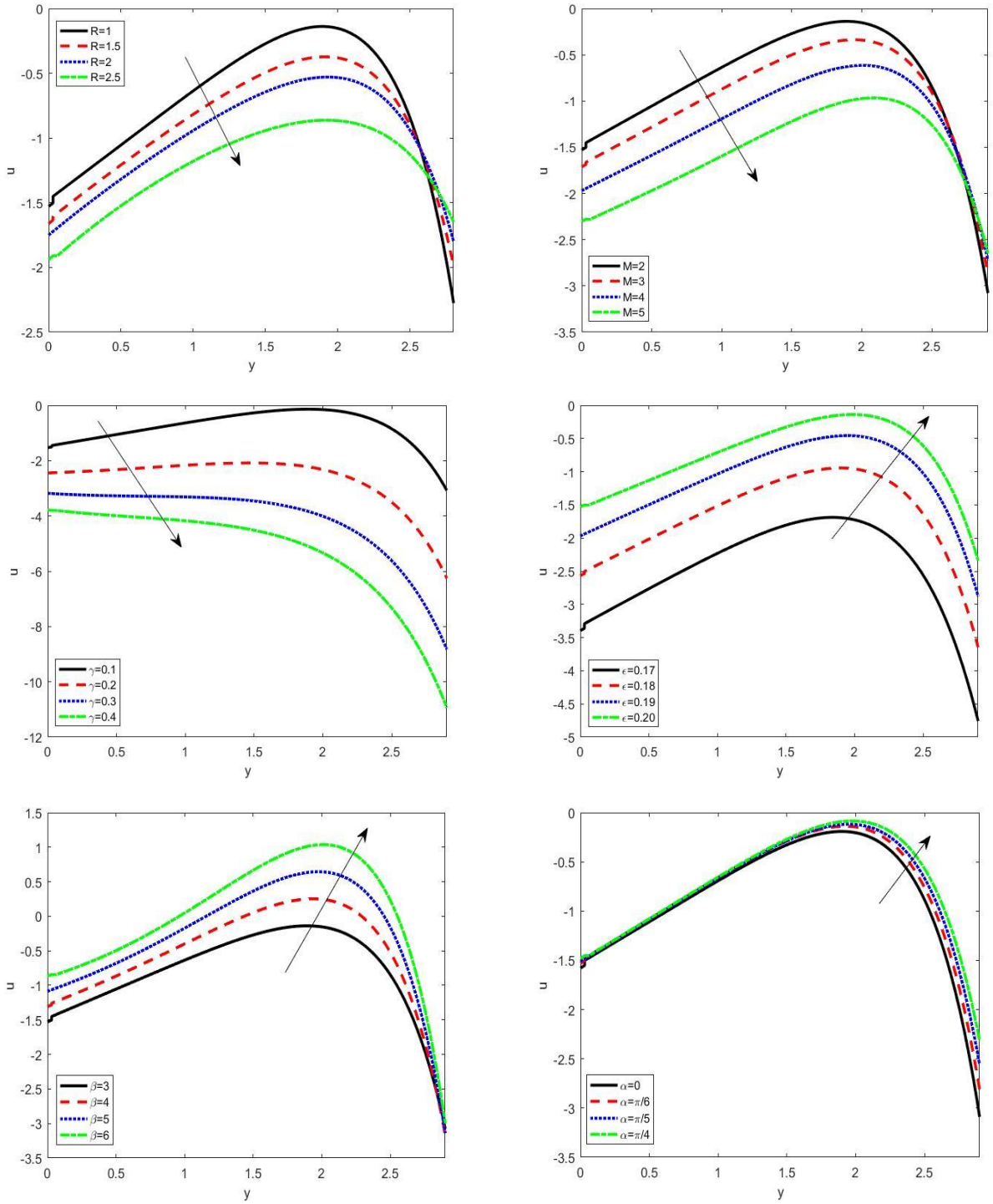

Figure 4: Discrepancies of the velocity u against the $y-$ axis for different values of the R, M, γ, ε, β and α in the peristaltic flow of Blood fluid in channels.

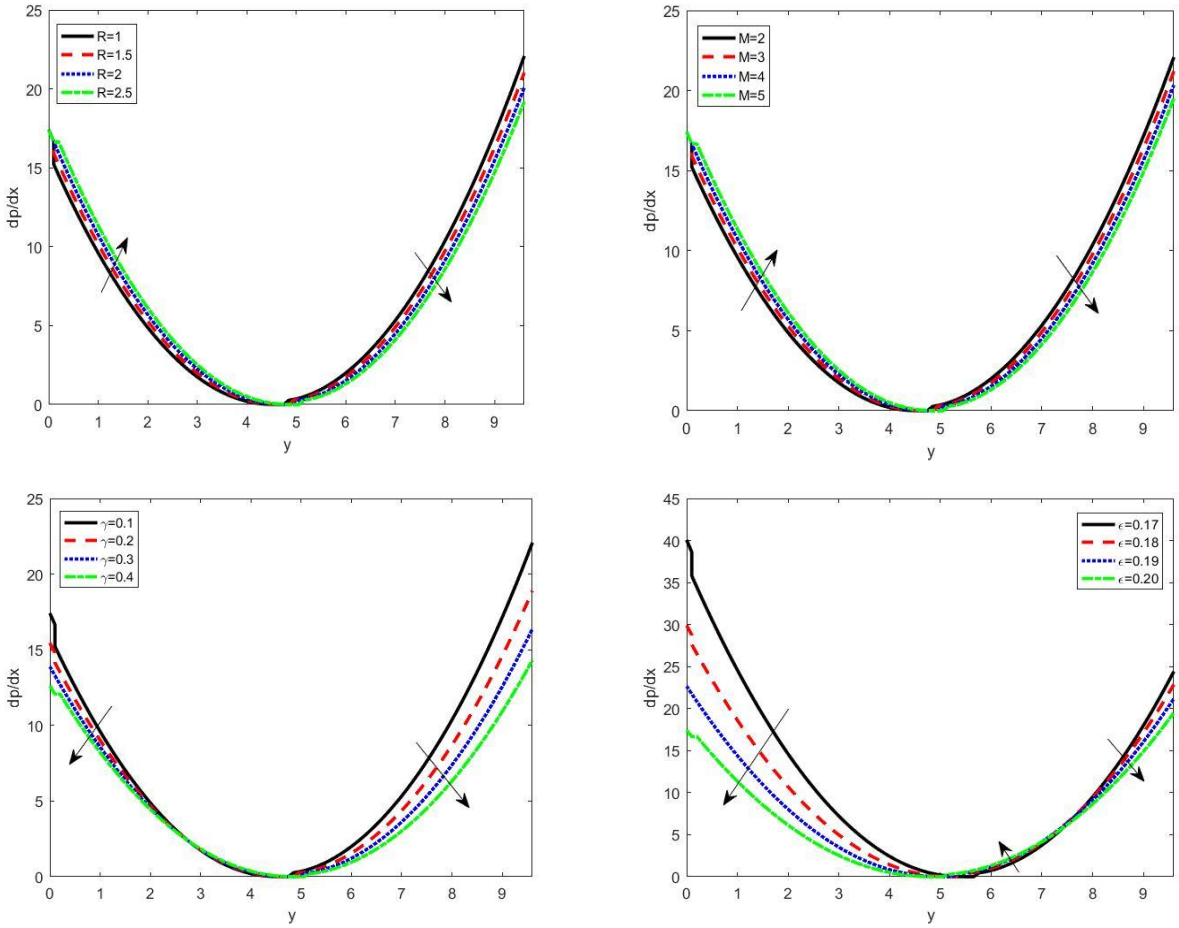

Figure 5: Discrepancies of the pressure gradient $\frac{dp}{dx}$ against the $y-$ axis for different values of the R, M, γ and ε in the peristaltic flow of Blood fluid in channels.

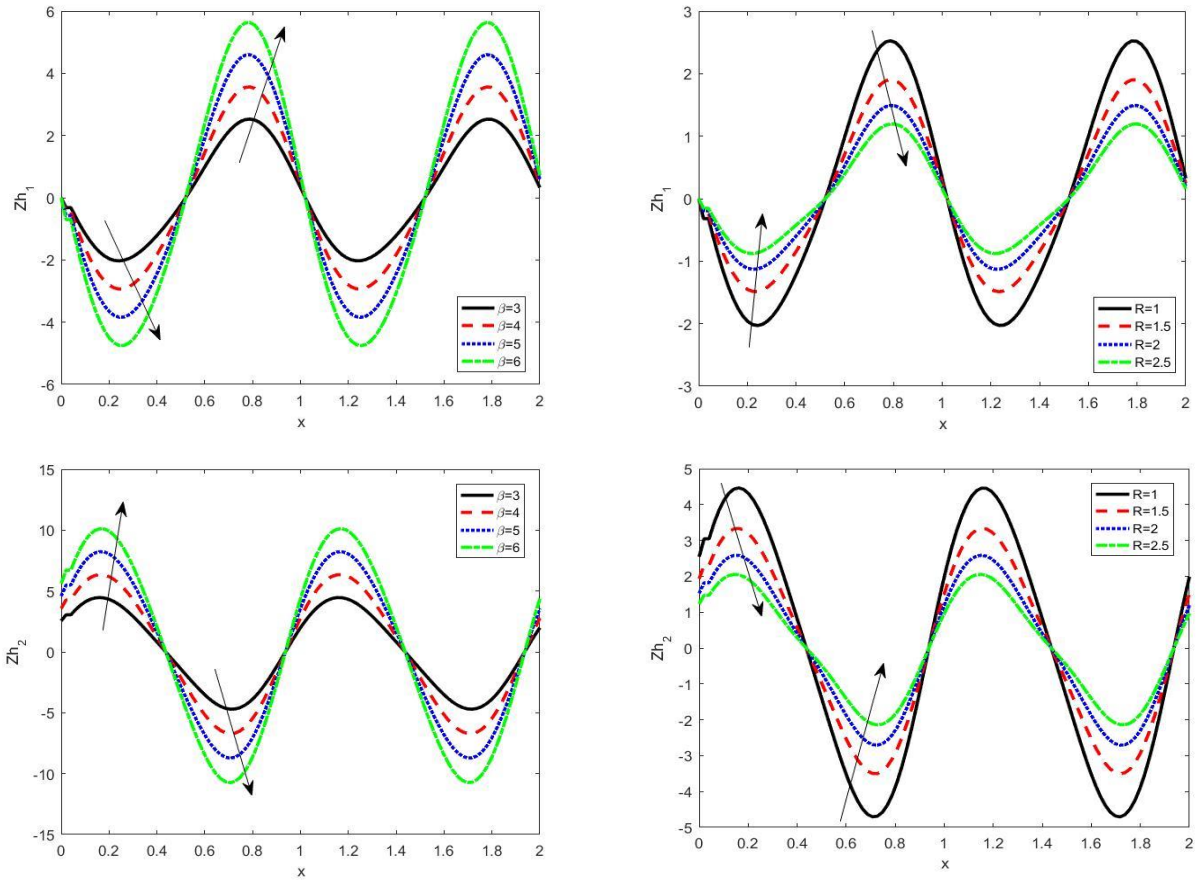

Figure 6: Discrepancies of the heat transfer coefficients Zh_1 of the upper wall and Zh_2 of the lower wall against the $x-$ axis for different values of the β and R in the peristaltic flow of Blood fluid in channels.

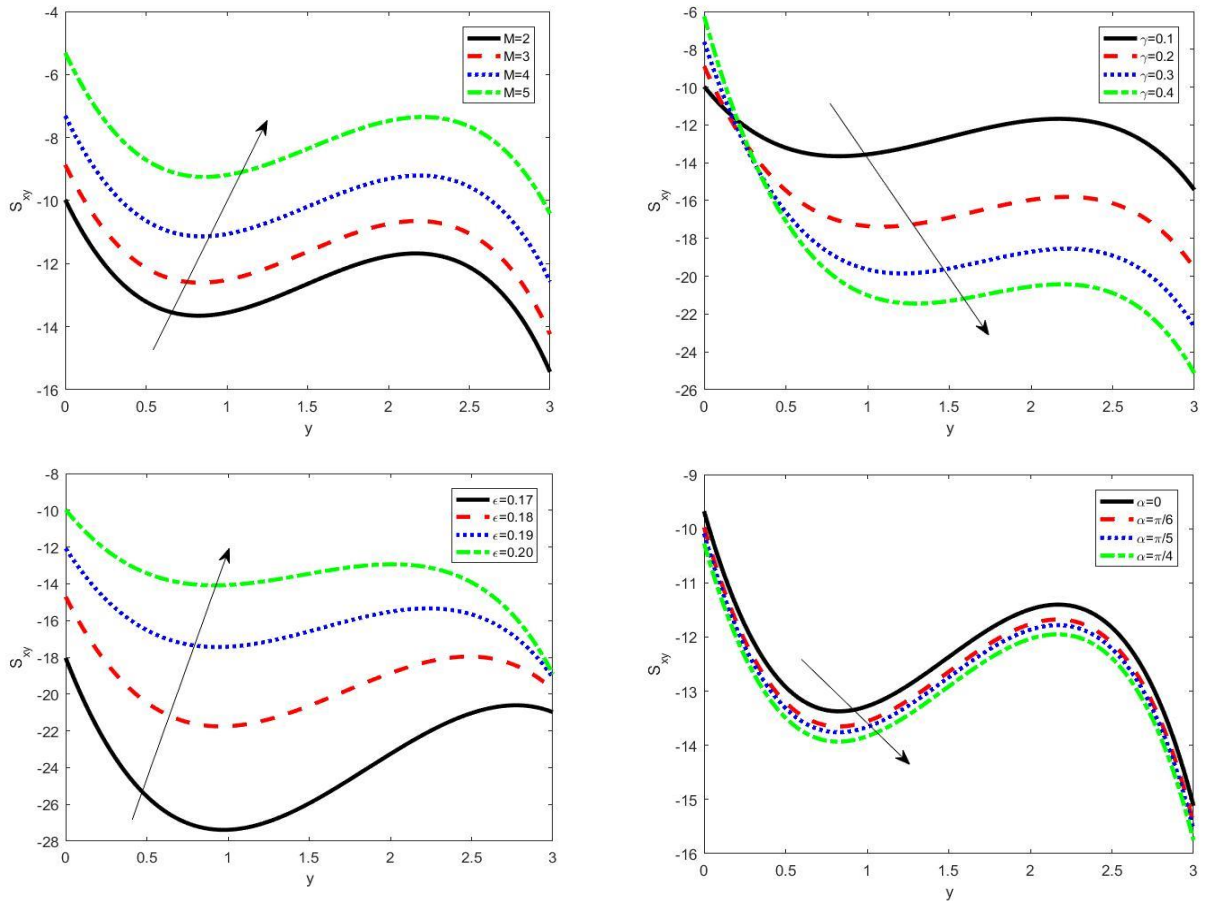

Figure 7: Discrepancies of the tangential stress S_{xy} against the $y-$ axis for different values of the M, γ, ε and α in the peristaltic flow of Blood fluid in channels.

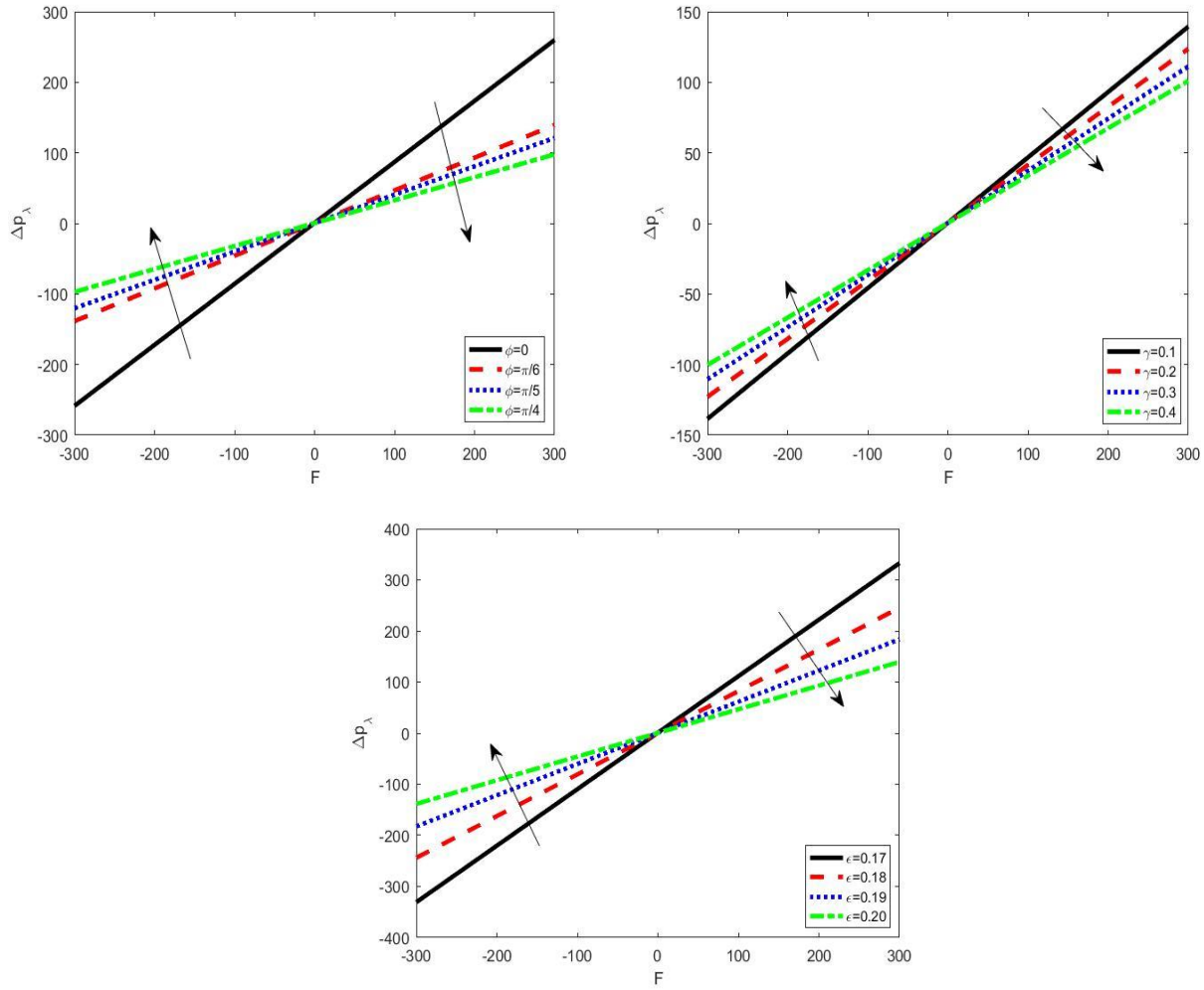

Figure 8: Discrepancies of the pressure rise Δp_λ against the $y-$ axis for different values of the ϕ, γ and ε in the peristaltic flow of Blood fluid in channels.

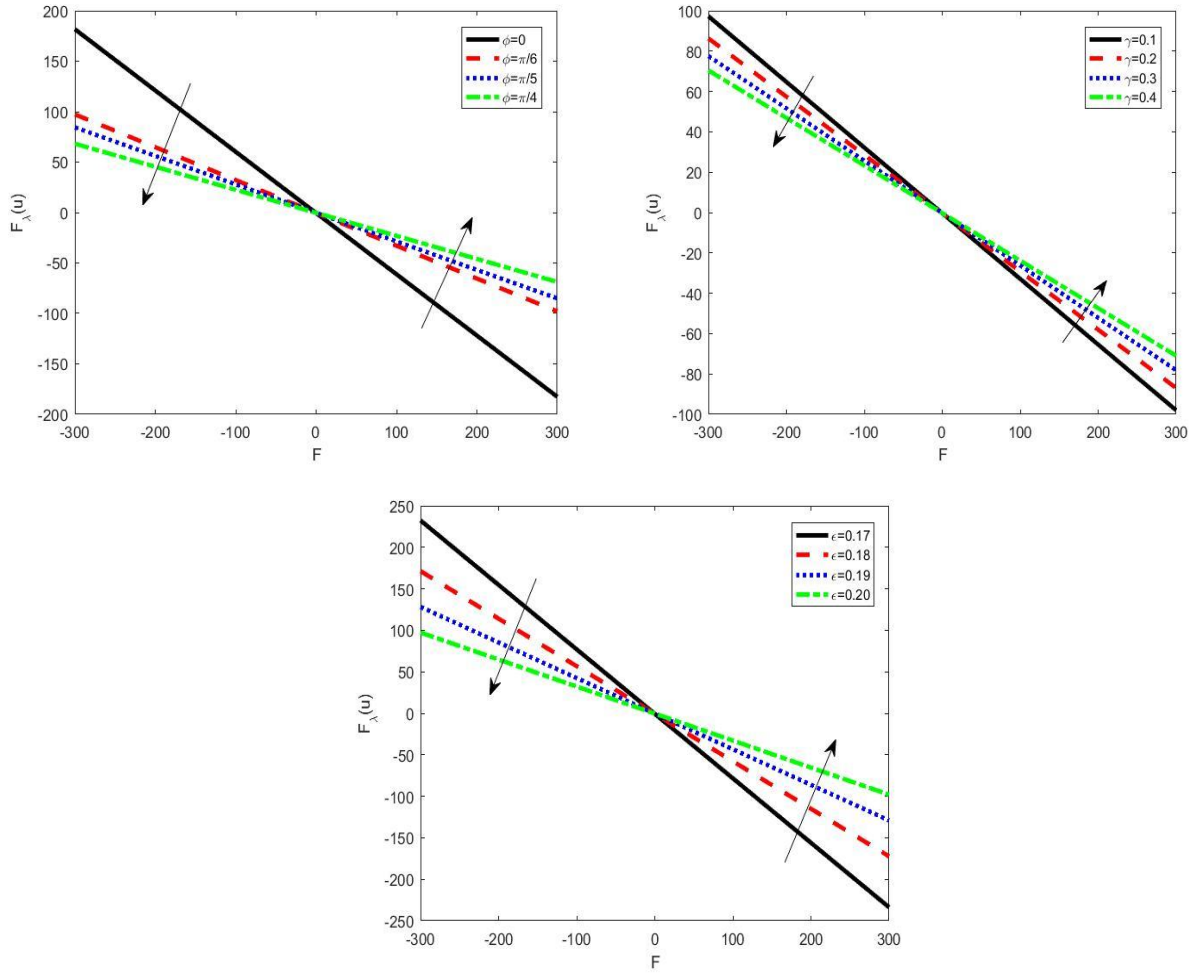

Figure 9: Discrepancies of the friction forces of the upper wall F_{λ}^{u} against the $y-$ axis for different values of the ϕ, γ and ε in the peristaltic flow of Blood fluid in channels.

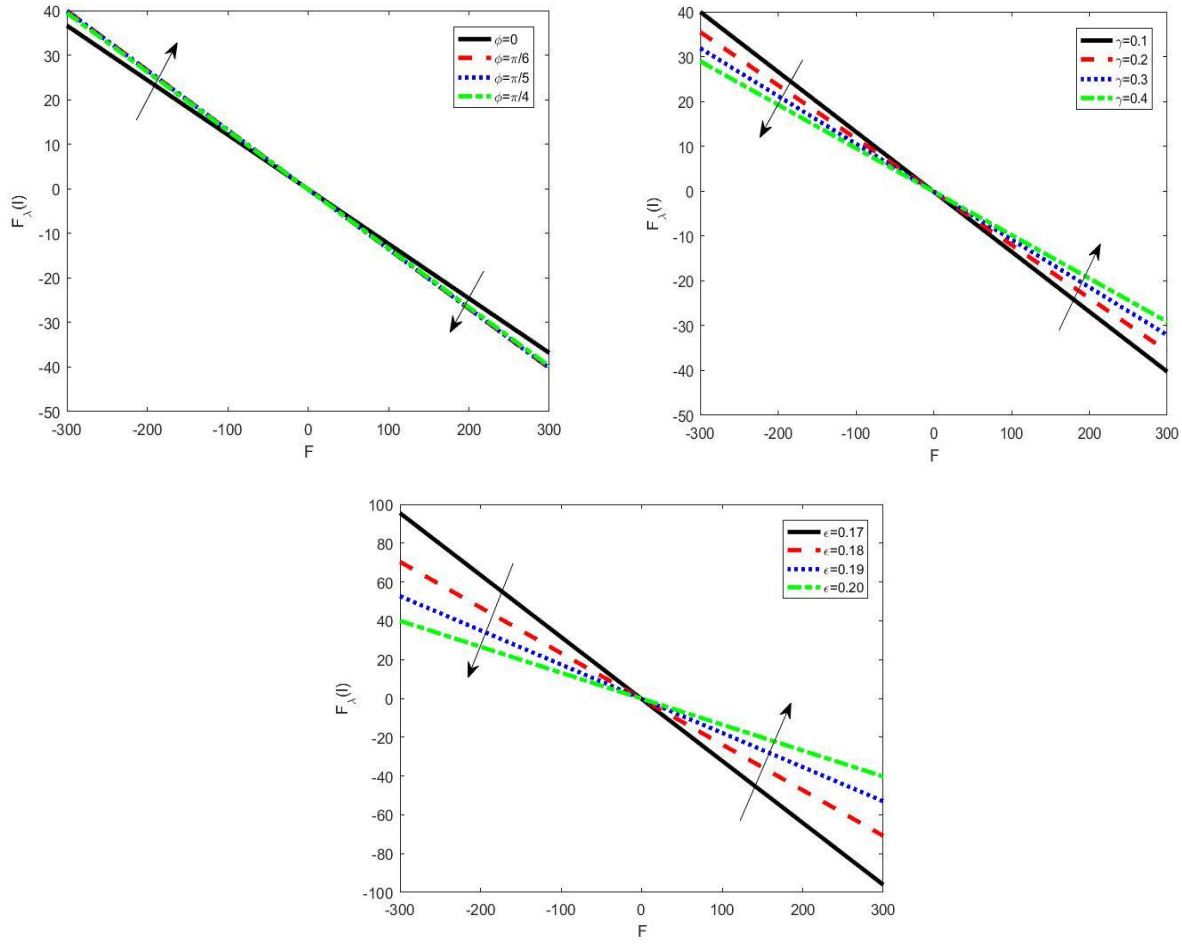

Figure 10: Discrepancies of the friction forces of the lower wall $F_\lambda^{\,l}$ with respect to the $y-$ axis for different values of the ϕ, γ and ε in the peristaltic flow of Blood fluid in channels.

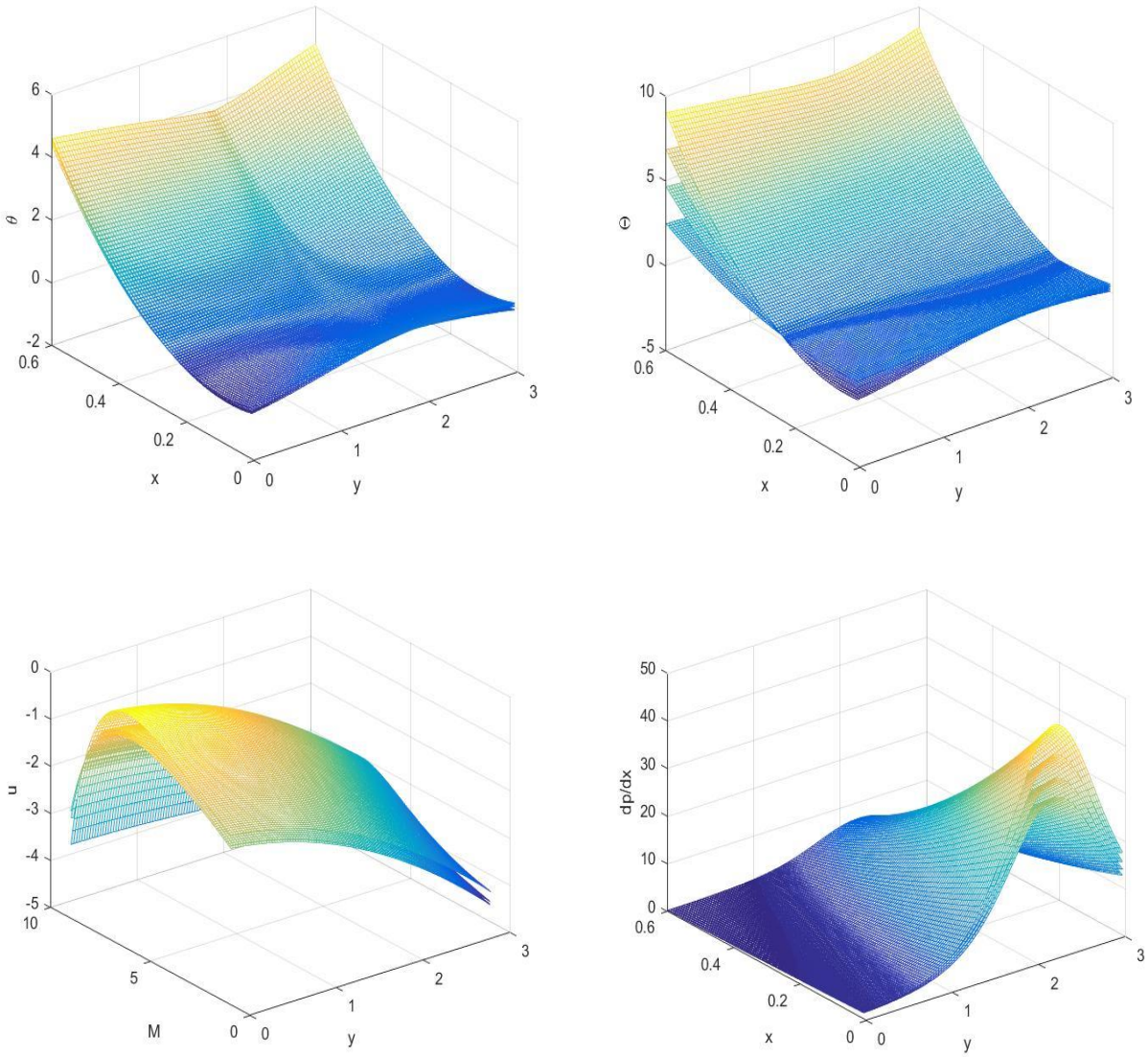

Figure 11: Discrepancies of the temperature, θ, concentration Θ, velocity u and the pressure gradient $\frac{dp}{dx}$ in 3D against x and y axis under the influence of the ϕ, Sc, M and γ.